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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,966

02/22/2007

Kenji Ito

2006_0839A

2536

513 7590 12/09/2010
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EXAMINER

WAITS, ALAN B

ART UNIT

PAPER NUMBER

3656

NOTIFICATION DATE

DELIVERY MODE

12/09/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/580,966	Applicant(s) ITO, KENJI	
	Examiner ALAN B. WAITS	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 22 and 23 recite the limitations "the sealing member the is fixed" and "is fixed an inner peripheral surface". The limitations are grammatically incorrect thus rendering the claims unclear and indefinite.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 6, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori et al. CN 1453481 and in view of Asai et al USP 6412984.

Komori discloses a similar device comprising:

Re clm 1

- A housing (7c, fig 1)
- A bearing sleeve (8, fig 1) having an inner peripheral surface and being secured in position inside the housing

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- A shaft member (2, fig 1) having an outer peripheral surface and being arranged to rotate relative to the bearing sleeve
- A radial bearing portion (R1, fig 7) supporting the shaft member radially in a non-contact fashion with an oil film formed in a radial bearing clearance between the inner peripheral surface of the bearing sleeve and the outer peripheral surface of the shaft member
- A second member (8, fig 1) being fixed by adhesion to the housing
- At least one of the second member and the housing has an adhesion portion (col 6, lines 8-16)
- The adhesion portion of the at least one of the second member and the housing has a roughened surface having a surface roughness of 0.5 μmRa or more

Komori does not disclose:

- the second member or the housing having the adhesion portion, the roughened surface and being formed of resin

Asai teaches a bearing sleeve being formed of resin (fig 11).

Since both Komori and Asai teach fluid bearing devices with bearing sleeves, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the material used for the bearing sleeve in Komori with the resin material used by Asai to achieve the predictable result of supporting the shaft with the bearing sleeve.

Re clm 2, Komori further discloses:

- the surface roughness of the adhesion portion is 2.0 μmRa or less

Re clm 6, Komori further discloses:

- the second member fixed to the housing by adhesion is the bearing sleeve
(fig 1)

Re clm 7, Komori further discloses:

- a stator coil (4, fig 1)
- a rotor magnet (5, fig 1)

Re clm 11, Komori further discloses:

- the second member fixed to the housing by adhesion is the bearing sleeve
(fig 1)

4. Claims 3-5, 8-10 and 12-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori et al. CN 1453481 and in view of Asai et al USP 6412984 as applied to claim 1 above.

Komori in view of Asai discloses all the claimed subject matter as described above.

Re clm 3 and 8, Komori does indeed disclose a bracket (6, fig 1) being fixed to the housing, however, he does not explicitly disclose:

- The second member fixed to the housing by adhesion is a bracket

Komori does indeed disclose fixing the bearing sleeve to the housing by adhesion (col 6, lines 8-18) for the purpose of preventing resin separation.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to fix any of the members connected to the housing, including a bracket, by adhesion for the purpose of preventing resin separation.

Re clm 4 and 9, Komori does indeed disclose a sealing member (10, fig 15) being fixed to the housing, however, he does not explicitly disclose:

- The second member fixed to the housing by adhesion is a sealing member

Komori does indeed disclose fixing the bearing sleeve to the housing by adhesion (col 6, lines 8-18) for the purpose of preventing resin separation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to fix any of the members connected to the housing, including a sealing member, by adhesion for the purpose of preventing resin separation.

Re clm 5 and 10, Komori does indeed disclose a thrust bush closing a bottom portion of the housing (T, fig 14) being fixed to the housing, however, he does not explicitly disclose:

- The other member fixed to the housing by adhesion is a sealing member

Komori does indeed disclose fixing the bearing sleeve to the housing by adhesion (col 6, lines 8-18) for the purpose of preventing resin separation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to fix any of the members connected to the housing, including a thrust bush closing a bottom portion of the housing, by adhesion for the purpose of preventing resin separation.

Re clm 12-20, Komori further discloses:

- A stator coil (4, fig 1)
- A rotor magnet (5, fig 1)

Re clm 21, Komori further discloses:

- The bracket is fixed to an outer peripheral surface of a side portion of the housing

Asai's bearing arrangement further discloses:

- The bracket is formed of metal (109, fig 8)

Re clm 22, Komori further discloses

- The sealing member is fixed to an inner peripheral surface of the housing (fig 15)

Re clm 23, Komori further discloses

- The thrust bush is fixed an inner peripheral surface of the housing (fig 14)

Response to Arguments

5. Applicant's arguments filed April 16, 2010 have been fully considered but they are not persuasive.

Applicant argues that "the resin sleeve of Asai is made of PPS which is a thermoplastic" and thus "Komori would need to be modified to an extend such that Komori would have been rendered inoperative". The examiner disagrees with this entire line of reasoning. The examiner also points out that Asai is not made of PPS, necessarily. The sentence immediately after the cited sentence of Asai states "the resin

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material is not limited to PPS, but any resin material having adequate strength and excellent wear-resistance".

The examiner disagrees that lowering the temperature of Komori to prevent melting of the sleeve of Asai would render Komori inoperative. It would be mere design choice to choose the proper resins to accomplish the objectives of Komori and Asai.

The examiner points to Komori who states "[the housing's] constituent parts can be respectively formed of a suitable resin composition whose material, composition, and shape may be selected according to the specific needs for each constituent part" and "by forming these separate parts from different resin compositions suitably selected in accordance with their specific requirements, respectively, the overall functionality of the housing can be improved" (col 2, ln 38-56). Komori clearly supports using multiple resin parts together and selecting them based on the criteria needed, such as melting points.

The examiner believes that the combination of Komori and Asai would be obvious to one of ordinary skill in the art even without the statement in Komori above. The statement in Komori merely cements the fact that the obviousness combination of the office action is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN B. WAITS whose telephone number is (571)270-3664. The examiner can normally be reached on Monday through Friday 7:30 am to 5 pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan B Waits/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656